



Analysis Seminar

Title: Isoperimetric inequalities for Bergman analytic content I

Speaker: S. Gardiner

Date: Tue 14th November 2017 at 3:00PM

Location: SCN 125

Abstract: The analytic content of a plane domain measures the distance between \bar{z} and a given space of holomorphic functions on the domain. It has a natural analogue in all dimensions which is formulated in terms of harmonic vector fields. This talk will review known results about analytic content, and then focus on the Bergman space of L^p integrable holomorphic functions. It will describe isoperimetric-type inequalities for Bergman p -analytic content in terms of the St Venant functional for torsional rigidity, and address the cases of equality with the upper and lower bounds. (This is joint work with Marius Ghergu and Tomas Sjödin.)